

The Impact of QRIS on Consumer Behavior in Urban Areas

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ABSTRACT

The purpose of this study is to study how urban consumer behavior is influenced by the implementation of digital payment systems, specifically the Quick Response Code Indonesian Standard (QRIS). This study used a quantitative approach, sending questionnaires to respondents in urban areas. The research results show that QRIS usage and ease of access influence consumer behavior. Key findings indicate that people purchase more frequently, are more likely to engage in consumer behavior, and prefer cashless payments. Due to the convenience of QRIS, 62% of respondents reported making more impulse purchases. In addition, consumers' perceptions of the practicality and security of QRIS also help them prefer to use it. The majority of respondents considered QRIS secure (76%) and faster than cash payments (84%). This research shows that QRIS implementation not only increases the speed and convenience of transactions but also has socio-economic consequences, such as an increased propensity to spend more money in urban areas.

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1. INTRODUCTION

Various aspects of people's lives have been significantly altered by the advancement of digital technology, including the financial and payment sectors (Akhwanul Akhmal and Lutviani 2024). A more effective, inclusive, and contemporary economic ecosystem is aided by the digital transformation of the payment system (Tatian et al. 2024). Non-cash payments are considered more efficient, fast, and secure than conventional cash-based payments, so people are increasingly accustomed to using them (Rifka Alkhilyatul Ma'rifat, I Made Suraharta 2024). In 2019, Bank Indonesia launched *Quick Response Code Indonesian Standard* (QRIS) as a national standard for QR Code-based payments (Collins et al. 2021). The purpose of QRIS is to bring together various payment service providers (Nasih, Gati, and Rahayu 2024), making transactions easier by using a single QR code that can be used on various platforms (Kartika Cahyaning and Arum Puspawati 2024). One of the strategic steps in realizing the vision of the National Non-Cash Movement (GNNT) is the implementation of QRIS, which supports the acceleration of financial inclusion in the digital era (Putri et al. 2024).

Consumers in urban areas, where digital technology penetration rates are high and people tend to be more open to financial innovation, value QRIS as a solution that facilitates everyday transactions, from modern in-store payments to small stores (Firsanty, Jatnika, and Puspita 2025).

However, the use of QRIS is not only limited to efficiency, the implementation of this digital payment system also affects consumption patterns, payment preferences, and consumers' views on security and convenience of transactions (Gumilang et al. 2023). This fact should be researched because a deeper understanding of the effects of QRIS can be used by regulators, business actors, and financial service providers to choose the best way to implement digital payment systems in the future.

In previous research with Theory of Planned Behavior (TPB) and PLS-SEM, behavioral factors (attitudes, subjective norms, perceived behavior control) towards intentions among the millennial generation in Eastern Indonesia, it was shown that the internal component is quite favorable for low adoption to be more related to external constraints, such as digital infrastructure and literacy (Tatian et al. 2024). Other studies show that attitudes, subjective norms, and behavioral controls influence the desire to use QRIS. However, digital literacy and infrastructure limitations are obstacles (Ida Bagus Gede and Luh Putu 2023). Furthermore, the perception of profit and socialization have a big impact on the desire to use QRIS, while obstacles have little effect. In this study, it was found that it provides an overview of how customer perception in urban areas affects the QRIS decision-making process (Michael, Widjaya, and Gui 2024).

Based on this background, this study aims to study how the implementation of QRIS-based digital payment systems has an impact on consumer behavior in urban areas.

2. METHOD

This research method is designed to systematically analyze how consumer behavior in urban areas is influenced by the implementation of the QRIS digital payment system. Therefore, it is expected that this approach can provide a clear picture of how researchers collect, process, and analyze information to make research results scientifically accountable. The research method can be seen in figure 1 below:

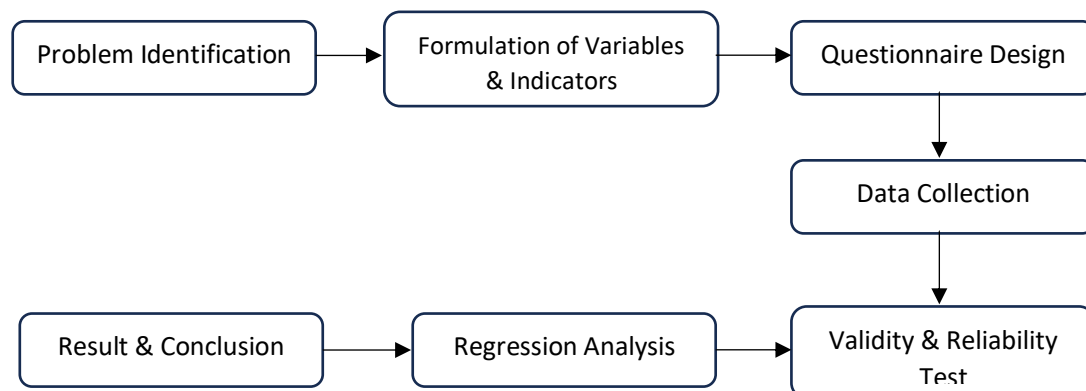


Figure 1. Research Methods

From the image above, the researcher can explain as follows:

Problem Identification

In the initial stage, the researcher identified the main problem, namely how consumer behavior in urban areas is affected by the implementation of the QRIS digital payment system. This is done by looking at social phenomena, advances in payment technology, and the findings of previous research.

Arrangement of Variables & Indicators

The researcher determines the research variables after the problem is formulated. The implementation of the QRIS payment system is an independent variable, and consumer behavior is a dependent variable. Ease of use, transaction speed, security, and frequency of use are indicators for each variable.

Questionnaire Preparation

Based on the indicators that have been set, a research instrument in the form of a questionnaire is made. To collect primary data, this questionnaire will be the main tool. Respondents' attitudes and perceptions were measured through the Likert scale.

Data Collection

The questionnaire used a convenience sample collection technique for respondents who met the following criteria : age 17 years and older, residing in an urban area, and using QRIS at least three time in the past month. The collected data was then summarized for additional analysis.

Validity & Reliability Test

Before the main analysis is conducted, the questionnaire is tested for validity and reliability to ensure that the questions measure what should be measured as well as to ensure that the respondents' answers are consistent. The test was carried out using a statistical program.

Regression Analysis

The influence of independent variables (QRIS implementation) on dependent variables (consumer behavior) was measured by simple linear regression. The significance effect was measured by the t-test, and the contribution of QRIS to changes in consumer behavior was measured by the R² test.

Results & Conclusions

From this, the researcher draws conclusions about the impact of QRIS implementation on consumer behavior in urban areas and provides recommendations for regulators, service providers, and consumers.

3. FINDINGS AND DISCUSSION

In this section, the researcher presents the results of research on the impact of the implementation of QRIS-based digital payment systems on consumer behavior in urban areas. The results included a description of the respondents, a test of the research instruments, and a regression analysis used to test the hypothesis. Furthermore, discussions are carried out by relating research results to theories to gain a better understanding of this topic.

Respondent Description

Before further analysis, this study first presented a respondent profile to provide an overview of the characteristics of the participants involved. Respondents' profiles include gender, age, and level of use of QRIS in daily life. The purpose of disseminating this data is to build a foundation for the interpretation of the research results, which allows analysis of how the implementation of this research impacts the greater level of its use. This study involved 150 customers in urban areas who used QRIS as respondents. The data can be seen in Table 1 below:

Table 1. Male Respondent Data

Gender	Number (people)	Percentage (%)
Man	68	45,3%
Woman	82	54,7%
Total	150	100%

Judging from the respondents' data, women are more dominant than men; This suggests that women living in urban areas may use QRIS more often in their daily activities. Then the results of respondents based on age can be seen in Table 2 below:

Table 2. Age-Based Respondent Data

Age	Number (people)	Percentage (%)
17–25 years old	90	60%
26–35 years old	45	30%
> 35 years old	15	10%
Total	150	100%

Judging from this data, most of the people who answered were aged 17 to 25, indicating that the younger generation is faster to adopt digital payment technology such as QRIS. Furthermore, the results of the data of the respondents on the Frequency of Use can be seen in Table 3 below:

Table 3. Frequency of Usage Respondent Data

Frequency of QRIS Use	Number (people)	Percentage (%)
> 5 times per week	105	70%
2–4 times per week	30	20%
< 2 times per week	15	10%
Total	150	100%

From this data, it shows that QRIS has become an important part of people's lifestyles in cities, as the majority of respondents use it at high intensity more than five times a week. Then from the three

tables above, it can be concluded that women aged 17–25 years are the majority of QRIS users in urban areas.

Validity Test

The validity test was carried out using the *Pearson Product Moment* correlation with the criteria. The questionnaire item is valid if the r -calculated value $>$ r -table (r -table for $n=150$, $\alpha=0.05$ is 0.1603). The results of the validity test for the QRIS Implementation variable can be seen in Table 4 below:

Table 4. results of the X variable validity test

Statement Item (X)	r-count	r-table	Information
QRIS is easy to use	0,652	0,1603	Valid
QRIS speeds up transactions	0,701	0,1603	Valid
QRIS is safe to use	0,615	0,1603	Valid
QRIS is available at various merchants	0,574	0,1603	Valid

Then the following are the results of the validity test of the Respondent Behavior variable (Y) as shown in Table 5 below:

Table 5. results of the X variable validity test

Statement Item (Y)	r-count	r-table	Information
I have been transacting more often since there was QRIS	0,682	0,1603	Valid
I make impulse purchases more often	0,735	0,1603	Valid
I prefer non-cash payments to cash	0,648	0,1603	Valid
I feel more satisfied with transacting with QRIS	0,692	0,1603	Valid

From the results of the validity test above, each statement item related to variables X and Y has a greater r -count value than the r -table value. Thus, all question items are valid.

Reliability Test

To test the reliability of this study, researchers used *Cronbach's Alpha*. The category is a reliable instrument if the value $\alpha \geq 0.7$. The test results can be seen in Table 6 below:

Table 6. Reliability test results

Variabel	Cronbach's Alpha	Information
QRIS Implementation (X)	0,841	Reliabel
Consumer Behavior (Y)	0,873	Reliabel

Both variables are considered reliable because they have Cronbach's Alpha value of more than 0.7.

Results of Simple Linear Regression Analysis

- Model Regresi

Analysis using SPSS yielded the following regression equations:

$$Y=12.315+0.524X \quad (1)$$

Information:

The consequence ($a = 12.315$) suggests that the baseline score of consumer behavior will remain 12.315 if the implementation of QRIS (X) is a value of 0.

The regression coefficient ($b = 0.524$) indicates that every one unit increase in QRIS implementation will lead to an increase in customer behavior by 0.524.

- Coefficient of Determination (R^2)

R^2 value = 0.412 This means that the implementation of QRIS explains 41.2% of the difference in consumer behavior. Then the last 58.8% were influenced by factors outside of this study. These factors include social factors, promotion, financial literacy, consumptive culture, and cultural factors. The results of the Significance Test (t-test) can be seen in table 7 below:

Table 7. Significance Test Results (t-Test)

Variabel	t-count	t-table ($\alpha=0.05$)	Sig.	Information
QRIS Implementation (X)	8,321	1,976	0,000	Significant (H1 accepted)

What we can conclude from table 7 above is that the implementation of QRIS has a significant effect on consumer behavior in urban areas, because the t-count (8.321) is greater than the t-table (1.976) and the value of sig. ($0.000 < 0.05$). While the results of the F test can be seen in table 8 below:

Table 8. Significance Test Results (f)

F-count	F-table ($\alpha=0.05$)	Sig.	Information
69,23	3,91	0,000	Decent models

The implementation of QRIS has a significant positive impact on buyer behavior in urban areas. The more QRIS is implemented (easy to use, fast, secure, and widely available) the more changes in consumer behavior occur, such as increased transaction frequency, the tendency to buy goods, and the tendency to use cash.

Result

The results show that the change in consumer behavior is greater when QRIS is used more frequently and is easier to use, as demonstrated by increased purchase frequency, increased consumptive tendencies, and strong preference for non-cash payments. Most respondents (62%) said they make impulse purchases more often. Then respondents rated QRIS as safe to use (76%) and faster than cash payments (84%).

4. CONCLUSION

From the results of the analysis carried out, it can be concluded that the implementation of QRIS can significantly affect customer behavior. Non-cash payments are becoming more popular due to their convenience, speed, and perceived security. It is indicated by an increase in the frequency of purchases and an increase in consumptive behavior, especially in the case of impulse purchases. However, business actors benefit from QRIS because it allows for more transactions and sales. However, the use of QRIS can pose a risk of wasteful behavior in consumers if not used correctly. Therefore, implementing QRIS has socio-economic consequences that need to be considered, in addition to technical issue

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